

REMARKS

Claim 41 is cancelled hereunder without prejudice. Claims 33, 43, 51, and 55 have been amended to more particularly define Applicants' invention. Support for the amendment to Claim 33, 43, 51, and 55 is found on page 9, lines 21 - 24 of the instant specification.

35 U.S.C. §103(a) Rejections

Sharp:

Claims 33 - 35, and 39, are rejected under 35 U.S.C. §103(a) as obvious over U.S. 5,297,512 issued to Sharp (hereinafter "Sharp") for the reasons of record stated at pages 2 - 4 of the Office Action. Applicants respectfully traverse this rejection. Sharp purports to relate to an ultrasonic hairbrush for grooming an animal.

Page 3 of the Office Action asserts that *"a cleaning head (Figure 1) that is adapted to be removably mounted to the housing (as it is attached by a "friction fit, Column 2 Lines 35 - 41") and capable of being interchangeable (as it is attached by a "friction fit" so that one is capable of removing one head and reattaching another by any means).* On pages 11 - 12 of the Office Action, the assertion is made that the *"cleaning head of Sharp is removably mounted to the housing and the head is capable of being interchangeable. I*

n Column 2, lines 35 - 41 it is stated that the head and housing are attached by a friction fit and it is shown in the Figures as to how they are attached".

Applicants disagree with these assertions as there is no teaching in Sharp to support these assertions. Furthermore, Applicants also believe that the Examiner may be misreading Sharp as the friction fit of Sharp secures the housing (18) to the sound signal generating circuit (14) and the vibrating means (16) to protect such components. The housing does not cover the hairbrush tines (28). Yet further, though the housing (18) may be removable there is no suggestion in Sharp to indicate that the hairbrush portion (12) is removable or interchangeable. In fact, column 2, lines 45 - 49 of Sharp indicates that the tines of the hairbrush are secured to a concave mounting member 26. [See Sharp Figure 1 and 26 - 40] Additionally Sharp discloses that "Mounted to the hairbrush portion is an ultrasonic sound signal generating circuit 14 and vibrating means shown generally at 16. A housing 18 is operable to be received over the ultrasonic sound signal generating circuit 14 and the vibrating means 16 to protect such components. The housing 18 has been shown in a position removed from the hairbrush portion 12 and in use, the housing 18 is secured by a friction fit directly to a first member 20 to which the ultrasonic sound signal generating circuit 14 and vibrating means 16 are mounted and thereby covers these components accordingly." [See Sharp, column 2, lines 30 - 41] The friction fit as disclosed by Sharp secures the housing (18) to the ultrasonic generating circuit (14) and the vibrating means (16) for purposes of protecting such components. Hence, there is nothing to link the friction fit of Sharp to a suggestion that the hairbrush tines (28) of Sharp are either removable or interchangeable. In fact, the Sharp specification as pointed out above, suggests just the opposite. Yet further, the specification and

drawings of Sharp support that the only removable portion of the Sharp grooming device is the housing (18).

Hence, as nothing in either the specification or the accompanying drawings of Sharp teach either expressly or implicitly an interchangeable or removable cleaning head as claimed by Applicants, Claims 33 - 35 and 39 of the instant application are unobvious over Sharp.

Additionally, page 3 of the Office Action provides that Sharp does not disclose utilizing a cleaning surface area greater than 6.25 cm^2 . Applicants agree with this. However, the Office Action goes on to indicate that "Figure 1 indicates a finger defining a scale for the size of the device indicating that the area greater than about 6.25 cm^2 and additionally, Sharp gives a dimension for each tine of being $3/4$ ".

Applicants disagree with this assertion. To establish a prima facie case of obviousness, three basic criteria must be met. First there must be some suggestion or motivation either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference. Second, there must be a reasonable expectation of success. Third, the prior art reference must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. MPEP 2142 citing *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Figure 1 of Sharp shows a finger touching the housing of the apparatus. However, there is nothing to suggest in Figure 1 Applicants' limitation of a minimum cleaning head surface area of greater than about 6.25 cm^2 . Nor is it clear that the finger touching the housing of the apparatus equates to a cleaning head greater than about 6.25 cm^2 . Yet further, the $3/4$ " dimension of the tines that the Examiner refers to on page 3 and page 12 of the Office Action is indicated at column 2, line 48 of Sharp to be the approximate length of each tine. There is nothing however, to suggest a cleaning head greater than about 6.25 cm^2 . It is impermissible to use hindsight to reconstruct the prior art from Applicants' invention.

On pages 13 and 14 of the Office Action, the Examiner indicates that "*it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure*". As discussed above, Sharp does not teach or suggest *inter alia* a cleaning head that is removable or interchangeable. Furthermore, Sharp does not teach or suggest a cleaning head greater than about 6.25 cm^2 . This is knowledge which is gleaned only from Applicants' disclosure. Yet further, Sharp does not teach or suggest a device which provides a power output per unit of surface area of the cleaning head of at least about 0.02 watts/cm^2 .

Hence, as a prima facie case of obviousness has not been met, Claims 33 - 35 and 39 of the instant application are unobvious over Sharp. Applicants respectfully request that this rejection be reconsidered and withdrawn.

Bock (U.S. 5,369,831) in view of Dolinsky (U.S. 4,288,883):

Claims 33 - 35, 39, and 42 - 45 are rejected under 35 U.S.C. §103(a) as obvious over U.S. 5,369,831 issued to Bock (hereinafter "Bock '831") in view of U.S. 4,288,883 issued to Dolinsky (hereinafter Dolinsky) for the reasons of record stated at pages 4 - 5 of the Office Action. Applicants respectfully traverse this rejection. Bock '831 teaches an ultrasonic toothbrush for removing plaque and tartar from teeth. Dolinsky teaches a combined tooth brush and gum massaging device. On page 4 of the Office Action, the Examiner indicates that:

"the transducer means has an average oscillating frequency of from about 1000 Hz to about 100 kHz (Title states that the device is ultrasonic, Column 2 Lines 66 - 68, wherein "ultrasonic" is defined as designating or a frequency of mechanical vibrations above the range audible to the human ear, i.e.; above 20,000 vibrations per second" according to The Webster's New World Dictionary of American English, Third College Edition Copyright ©1988 by Simon & Schuster, Inc. wherein 20,000 vibrations per second converted into Hertz, is 20,000 Hz or 20 kHz)."

With regard to the Examiner's assertion that column 2, lines 66 - 68 of Bock '831 teaches a "transducer means having an average oscillating frequency of from about 1000 Hz to about 100 kHz", there is no such teaching or statement at column 2, lines 66 - 68 of Bock '831. Additionally, there is no such teaching or statement anywhere else in Bock '831 or anywhere in Dolinsky. Referring to Column 2, lines 66 - 68 of Bock '831 only the following is disclosed: *"In the following discussion, unless otherwise qualified, the term "ultrasonic" refers to either subsonic, sonic, or ultrasonic frequencies"*. In fact, the specific frequency range cited by the Examiner is a frequency range which has come directly from Applicants' instant disclosure. Hence, the Examiner is impermissibly reading Applicants' claim limitation into Bock '831. On page 12 of the Office Action, the Examiner indicates that Bock '831 does not explicitly state a frequency, however the title and specification clearly state that Bock '831 operates at an ultrasonic range. The Examiner further asserts *"if "ultrasonic" is considered to be above 20,000 vibrations per second is converted into Hertz, the frequency at which Bock '831 operates is at least 20,000 Hz or 20 KHz, which falls in the range of 1000 Hz to 100 KHz."* Applicants disagree with the Examiner's assertion as there is no basis in Bock '831 or Dolinsky which discloses either expressly or impliedly Applicants' specific claimed frequency range of from about 1000 Hz to about 100 KHz. Furthermore, there is no suggestion either expressly or impliedly that the Bock '831 toothbrush runs at the specific frequency of 20 KHz asserted by the Examiner. Applicants respectfully request the Examiner to point to the location in Bock '831 which indicates that the Bock '831 toothbrush operates at the specific frequency of 20 KHz.

Yet further, Bock '831 in view of Dolinsky does not teach or suggest either expressly or impliedly a hand held cleaning device which provides a power output per unit of surface area of the cleaning head of at least about 0.02 watts/cm².

Hence, as Claims 33 - 35, 39, and 42 - 45 are unobvious over Bock '831 in view of Dolinsky, Applicants respectfully request that the Examiner reconsider and withdraw this rejection.

Bock (U.S. 5,546,624) in view of Dolinsky (U.S. 4,288,883):

Claims 33 - 35, 39, and 42 - 45 are rejected under 35 U.S.C. §103(a) as obvious over U.S. 5,546,624 issued to Bock (hereinafter "Bock '624") in view of U.S. 4,288,883 issued to Dolinsky for the reasons of record stated at pages 6 - 7 of the Office Action. Applicants respectfully traverse this rejection. Bock '624 teaches an ultrasonic toothbrush for removing plaque and tartar from teeth. Dolinsky teaches a combined tooth brush and gum massaging device.

Bock '624 does not teach or suggest a transducer means having Applicants' claimed average oscillating frequency of from about 1000 Hz to about 100 KHz. With regard to the oscillation frequency of the Bock '624 toothbrush, page 6 of the Office Action indicates that "*the frequency is 1.6 MHz (about 100 kHz, see Column 8 Lines 43 - 46). Further the transducer has an average oscillating frequency of from about 1000 Hz to about 100 kHz.*" The Office Action then goes onto to assert that 1.6 MHz is about 100 KHz. Applicants disagree with this assertion. Referring to column 8, line 43 of Bock '624, it is disclosed that a "*useful frequency is 1.6 MHz*". The frequency range claimed by Applicants (i.e.; about 1000Hz to about 100 KHz) is substantially lower than the 1.6 MHz (i.e.; 1.6 MHz is equivalent to 1,600 KHz) disclosed by Bock '624. It is impermissible to reconstruct the prior art in hindsight utilizing Applicants' claimed invention as the template. [See MPEP §2142].

Yet further, pages 6 and 13 of the Office Action indicate that:

"the transducer means has an average oscillating frequency of from about 1000 Hz to about 100 kHz, since the toothbrush is ultrasonic (see Title) and ultrasonic refers to subsonic, sonic, or ultrasonic (Column 3 Lines 51 - 55; ...)." The Examiner further asserts "therefore if "ultrasonic" is considered to be above 20,000 vibrations per second is converted into Hertz, the frequency at which Bock '624 operates is at least 20,000 Hz or 20 KHz."

Applicants disagree with the Examiner's assertion as there is no basis in Bock '624 or Dolinsky which discloses either expressly or impliedly Applicants' specific claimed frequency range of from about 1000 Hz to about 100 KHz. Furthermore, there is no suggestion either expressly or impliedly that the Bock '624 toothbrush runs at the specific frequency of 20 KHz as asserted by the Examiner. Applicants respectfully request the Examiner to point to the location in Bock '624 which indicates that the Bock '624 toothbrush operates at the specific frequency of 20 KHz. In fact, this specific frequency range is knowledge which has come directly from Applicants' instant disclosure and not from Bock '624 or Dolinsky. The only frequency range disclosed by Bock '624 is 1.6 MHz (see Bock '624, column 8, lines 42 - 43) which is outside of Applicants' claimed range. The Examiner may not read Applicants' claim limitations into Bock '624 as this is impermissible as hindsight reconstruction of the prior art. [See MPEP §2142].

Yet further, Bock '624 in view of Dolinsky does not teach or suggest either expressly or impliedly a hand held cleaning device which provides a power output per unit of surface area of the

cleaning head of at least about 0.02 watts/cm². Hence, as Claims 33 - 35, 39, and 42 - 45 are unobvious over Bock '624 in view of Dolinsky, Applicants respectfully request that the Examiner reconsider and withdraw this rejection.

Sawyer (U.S. 3,357,033) in view of Bock '831:

Claims 33 - 39, 41 - 52, and 55 - 56 are rejected under 35 U.S.C. §103(a) as obvious over U.S. 3,357,033 issued to Sawyer (hereinafter "Sawyer") in view of Bock '831 for the reasons of record stated at pages 7 - 10 and page 13 of the Office Action. This rejection is moot as far as it applies to Claim 41 as Claim 41 stands cancelled hereunder without prejudice.

Sawyer purports to relate to a cleaning tool which utilizes a source of sonic energy in the lower sonic range. [See column 1, lines 10 - 15 and lines 50 - 55 of Sawyer]. As previously discussed, Bock '831 teaches an ultrasonic toothbrush for removing plaque and tartar from teeth. The cleaning tool taught by Sawyer does not utilize ultrasonic energy. Furthermore, as acknowledged by the Examiner on page 9 of the Office Action, Sawyer does not disclose having a cleaning head surface greater than about 6.25 cm². Yet further as acknowledged by the Examiner, Sawyer does not disclose a power output of at least about 0.02 watts/cm² or any power output. Yet further, as acknowledged by the Examiner, Sawyer does not teach or suggest a cleaning device having *inter alia* a transducer means having an average oscillating frequency of from about 1000 Hz to about 100 KHz.

On page 9 of the Office Action, the Examiner asserts that "it would have been obvious for one of ordinary skill in the art to have the transducer of Sawyer modified to create an ultrasonic oscillating frequency of 20 KHz, as '831 teaches." Applicants respectfully disagree with this assertion. As provided above, Bock '831 does not teach or suggest an oscillating frequency of 20 KHz. There is no suggestion either expressly or impliedly that the Bock '831 toothbrush runs at the specific frequency of 20 KHz asserted by the Examiner. Hence, as there is no basis for this assertion, Applicants respectfully request the Examiner to withdraw this rejection.

As Sawyer in view of Bock '831 does not teach or suggest the limitations of Claims 33 - 36, 38 - 39, 42 - 51, and 55, Applicants respectfully request that this rejection be reconsidered and withdrawn.

Sawyer in view of Bock '831:

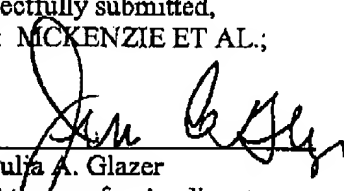
Claims 53, 54, 57, and 58 are rejected under 35 U.S.C. §103(a) as obvious over Sawyer in view of Bock '831 for the reasons of record stated on page 10 of the Office Action. The Office Action indicates that "*Sawyer and '831 disclose all elements regarding the device as stated above however do not disclose instructions for using the product*". Applicants agree that Sawyer does not disclose instructions for using the product but disagree with the Examiner's assertion that Sawyer in view of Bock '831 discloses all elements regarding the device. As Applicants have indicated in the discussion of Sawyer in view of Bock '831 above, Sawyer in view of Bock '831 does not disclose Applicants' claimed frequency range of from about 1000 Hz to about 100 kHz. Additionally, Sawyer in view of Bock '831 does not disclose any cleaning head surface dimensions let alone a

cleaning head surface greater than 6.25cm^2 . Yet further, Sawyer in view of Bock '831 does not disclose or suggest a power output of at least about 0.02 watts/cm^2 or any power output. Hence, Claims 53, 54, 57, and 58 are not obvious over Sawyer in view of Bock '831, Applicants respectfully request that the Examiner withdraw this rejection.

SUMMARY

This is responsive to the Office Action dated December 8, 2005. A one month extension of time is requested to respond to this Office Action. This Office Action response is being timely filed within the one month extension period as April 8, 2006 fell on a Saturday. As the rejections have been overcome, it is believed that the claims are in condition for allowance. Applicants respectfully request the rejections be reconsidered and withdrawn and the claims allowed.

Respectfully submitted,
FOR: MCKENZIE ET AL.;

BY: 
Julia A. Glazer
Attorney for Applicants
Registration No. 41,783
(513) 627-4132

April 10, 2006
Cincinnati, Ohio